

A VALUABLE DISCOVERY.

Burned Gumbo Makes the Best Kind of Highways.

Nowhere in the United States are the present roads poorer or better ones more needed than in some parts of the Mississippi valley. The problem of improvement in this region, moreover, has seemed peculiarly difficult because there are no ledges of rock of a kind suitable for making good road material.

But now, behold, out of the very excess of badness, out of the sticky, clinging, almost bottomless mud into which the roads are converted every spring and autumn, comes the material which is to work their salvation. This material is burned gumbo, the very mud which makes the roads so bad, baked over wood fires until it becomes one of the best roadbuilding materials known.

The credit of making the first practical application of this discovery belongs to the railroads. For several years they have been using burned gumbo as ballast for their roadbeds in Illinois, Missouri, Iowa and other states of the middle west. It was first intended as a substitute for crushed rock in regions where rock could not easily be obtained, but it demonstrated its superiority so plainly that it is now used extensively even where ledges are abundant.

The mud is really an impure, exceedingly sticky clay. The process of preparing it for use upon the road is very simple. Cordwood is piled in a low pyramid eight or ten feet wide. Over this is thrown three or four inches of coal slack, and on this again is placed from twelve to twenty inches of mud. When the wood is fired, a slow combustion goes on, which converts the mud into small, sharp cornered and exceedingly hard pieces, so that the product has the appearance of red gravel.

The railroads find that they can make and deliver the gumbo on board the cars at a cost of 25 to 35 cents a cubic yard, but when burned in more primitive fashion and on a smaller scale, as is usually the case on country highways, the cost is slightly greater.

Roads covered with this material are never muddy or dusty. They keep free from snow and ice, are slow to get out of repair, and weeds or grass will not grow on them. The supply of mud is unlimited, its preparation simple and cheap. A writer in The Review of Reviews declares that five years of systematic and intelligent work with burned gumbo would make the principal country roads as passable all the year round as a paved city street and at little more cost than the amount now wasted in "working the road."

FOR BETTER HIGHWAYS.

Society Organized for the Promotion of Good Roads.

A movement has been started in Media, Pa., that should receive the earnest support of every citizen. It is the organization of a society in the county for the promotion of good roads. The project has been launched well, and the interest taken in the matter thus far indicates that the promoters will be able to secure the co-operation of a large number of people.

For some reason it has taken many years to secure general interest in such an important reform as the making of fine highways, and in this particular this country is far behind some of the countries in Europe, which have ideal highways, says the Chester (Pa.) Times. All of the argument is on the side of the modern road, so it is not necessary to stop and convince the people of the utility of the well kept thoroughfare, but the question that must now be considered is how to secure the means with which to build the roads. Some of the states in the Union are very liberal in the laws for the encouragement of better highways, and in this particular Pennsylvania has much to learn from Connecticut, New Jersey, Massachusetts and other commonwealths, which have miles of highways over which a carriage or a bicycle can travel with ease and comfort.

If we are to have good facilities for moving about the country, and everybody concedes that we must, then it is clear that the state should assist, for the benefit is to the state as well as to the immediate territory affected. And if this is done it will be found that the farmers and suburban residents will quickly join in the movement to secure first class highways.

Rhode Island's Road Methods.

Rhode Island has shown a tendency to repudiate the methods adopted by most of the eastern and middle states in respect to the co-operation of state, counties and towns. That state, according to the idea of the legislators, should not aid financially the counties and towns further than merely disseminating information and showing the good results obtained from fine roads. This latter work is accomplished by building sample highways of half a mile in extent in each town and county. It was reasoned that these practical object lessons would arouse local pride sufficiently to make their extension an actuality. So far this system has justified the state authorities in their predictions. Nearly 500 miles of good gravel and stone roads have been built, representing about one-fifth of the total road mileage of the whole state.

To Build Good Roads.

A bill has been introduced in the house by Representative Otey of Virginia providing an appropriation of \$100,000,000 to be expended for good roads in the forty-five states and four territories of the United States in proportion to their population. The construction of the roads is placed in the bill under the supervision of the department of agriculture.

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Black Rock

By RALPH CONNOR

The event proved his wisdom, for in the turn the leading team left the track, lost a moment or two in the deep snow, and before they could regain the road the boys had swept superbly past, leaving their rivals to follow in the rear. On came the pintos, swiftly nearing the fort. Surely at that pace they cannot make the turn. But Sandy knows his leaders. They have their eyes upon the teams in front and need no touch of rein. Without the slightest change in speed the nimble footed bronchos round the turn, hauling the big teams after them, and fall in behind the citizens' team, which is regaining steadily the ground lost in the turn.

And now the struggle is for the bridge over the ravine. The boys in front, running with mouths wide open, are evidently doing their best. Behind them and every moment nearing them, but at the limit of their speed, too, come the lighter and fleet citizens' team, while opposite their driver are the pintos, pulling hard, eager and fresh. Their temper is too uncertain to send them to the front. They run well following, but when leading cannot be trusted, and, besides, a broncho hates a bridge, so Sandy holds them where they are, waiting and hoping for his chance after the bridge is crossed.

Foot by foot the citizens' team creep up upon the flank of the boys, with the pintos in turn hugging them closely, till it seems as if the three, if none slackens, must strike the bridge together, and this will mean destruction to one at least. This danger Sandy perceives, but he dare not check his leaders. Suddenly within a few yards of the bridge Baptiste throws himself upon the lines, wrenches them out of Sandy's hands and, with a quick swing, faces the pinto down the steep side of the ravine, which is almost sheer ice with a thin coat of snow. It is a daring course to take, for the ravine, though not deep, is full of undergrowth and is partially closed up by a brush heap at the farther end. But, with a yell, Baptiste hurries his four horses down the slope and into the undergrowth. "Allons, mes enfants! Courage! Vite! Vite!" cries their driver, and nobly do the pintos respond.

Regardless of bushes and brush heaps, they tear their way through, but as they emerge the high bob sleigh catches a root, and, with a crash, the sleigh is hurled in the air. Baptiste's cries ring out high and shrill as ever, encouraging his team, and never cease till, with a plunge and a scramble, they clear the brush heap lying at the mouth of the ravine and are out on the ice on the river, the box trailing behind and Sandy nowhere to be seen. Three hundred yards of the course remain. The boys, perfectly handled, have gained at the bridge and in the descent to the ice and are leading the citizens' team by half a dozen lengths. Behind both comes Baptiste. It is now or never for the pintos. The rattle of the trailing box, together with the wild yelling of the crowd rushing down the bank, excites the bronchos to madness, and, taking the bits in their teeth, they do their first free running that day. Past the citizens' team like a whirlwind they dash, clear the intervening space and gain the flanks of the boys. Can the boys hold them? Over them leans their driver, playing for the first time the hissing lash. Only fifty yards more. The miners begin to yell. But Baptiste, waving his lines high in one hand, seizes his toque with the other, whisks it about his head and flings it with a fiercer yell than ever at the bronchos. Like the bursting of a hurricane the pintos leap forward and with a splendid rush cross the scratch, winners by their own length.

There was a wild quarter of an hour. The shanty men had torn off their coats and were waving them wildly and tossing them high, while the ranchers added to the uproar by emptying their revolvers into the air in a way that made one nervous. When the crowd was somewhat quieted, Sandy's stiff figure appeared, slowly making toward them. A dozen lumbermen ran to him, eagerly inquiring if he were hurt. But Sandy could only curse the little Frenchman for losing the race.

"Lost! Why, man, we've won it!" shouted a voice, at which Sandy's rage vanished, and he allowed himself to be carried in upon the shoulders of his admirers.

"Where's the lad?" was his first question.

"The bronchos are off with him. He's down at the rapids like enough."

"Let me go!" shouted Sandy, setting off at a run in the track of the sleigh.

He had not gone far before he met Baptiste coming back with his team foaming, the reins going quietly, but the bronchos dancing and eager to be at it again.

"Volla! Bully boy! Tank the bon Dieu, Sandy. You not keel, eh? Ah, you are one grand chevalier!" exclaimed Baptiste, hauling Sandy in and thrusting the lines into his hands. And so they came back, the sleighbox still dragging behind, the pintos executing fantastic figures on their hind legs and Sandy holding them down. The little Frenchman struck a dramatic attitude and called out:

"Volla! What's the matter wiz Sandy, heh?"

The roar that answered set the bronchos off again plunging and kicking, and only when Baptiste got them by the heads could they be induced to stand long enough to allow Sandy to be proclaimed winner of the race. Several of the lumbermen sprang into the sleighbox with Sandy and Baptiste, among them Keefe, followed by Nelson, and the first part of the great day was over. Slavin could not understand the new order of things. That a great event like the four horse race should not be followed by drinks all round was to him at once disgusting and incomprehensible, and, realizing his defeat for the moment, he fell into the crowd and disappeared. But he left behind him his runners. He had not yet thrown up the game.

Mr. Craig meantime came to me and, looking after Sandy in his sleigh, with his frantic crowd of yelling admirers, said in a gloomy voice:

"Poor Sandy! He is easily caught, and Keefe has the devil's cunning."

"He won't touch Slavin's whisky today," I answered confidently.

"There'll be twenty bottles waiting him in the stable," he replied bitterly, "and I can't go following him up. He won't stand that. No man would. God help us all!"

I could hardly recognize myself, for I found in my heart an earnest echo to that prayer as I watched him go toward the crowd again, his face set in strong determination. He looked like the captain of a forlorn hope, and I was proud to be following him.

CHAPTER III.

WATERLOO—OUR FIGHT, HIS VICTORY.

THE sports were over, and there remained still an hour to be filled in before dinner. It was an hour full of danger to Craig's hopes of victory, for the men were wild with excitement and ready for the most reckless means of "slinging their dust." I could not but admire the skill with which Mr. Craig caught their attention.

"Gentlemen," he called out, "we've forgotten the Judge of the great race. Three cheers for Mr. Connor!"

Two of the shanty men picked me up and hoisted me on to their shoulders while the cheers were given.

"Announce the Punch and Judy," he entreated me in a low voice.

I did so in a little speech and was forthwith borne aloft through the street to the booth, followed by the whole crowd, cheering like mad.

The excitement of the crowd caught me, and for an hour I squeaked and worked the wires of the immortal and unhappy family in a manner hitherto unapproached, by me at least. I was glad enough when Graeme came to tell me to send the men in to dinner. This Mr. Punch did in the most gracious manner, and again with cheers for Mr. Punch's master they trooped tumultuously into the tent.

We had only begun when Baptiste came in quietly, but hurriedly, and whispered to me:

"M'sieu Craig, he's gone to Slavin's and would lak you and M'sieu Graeme would follow queer. Sandy, he's take one feel drink up at de stable, and he's go mad lak one diable."

I sent him for Graeme, who was presiding at dinner, and set off for Slavin's at a run. There I found Mr. Craig and Nelson holding Sandy, more than half drunk, back from Slavin, who, stripped to the shirt, was coolly waiting with a taunting smile.

"Let me go, Mr. Craig," Sandy was saying. "I am a good Presbyterian. He is a papist thief, and he has my money, and I will have it out of the soul of him."

"Let him go, preacher," sneered Slavin. "I'll cool him off for you. But you'd better hold him if you want his mug left on to him."

"Let him go!" Keefe was shouting. "Hands off!" Blaney was echoing. I pushed my way in. "What's up?" I cried.

"Mr. Connor," said Sandy solemnly, "it is a gentleman you are, though your name is against you, and I am a good Presbyterian, and I can give you the commandments and reasons annexed to them, but you's a thief, a papist thief, and I am justified in getting my money out of his soul."

"But," I remonstrated, "you won't get it in this way."

"He has my money," reiterated Sandy.

"He is a blank liar, and he's afraid to take it up," said Slavin in a low, cool tone.

With a roar Sandy broke away and rushed at him, but without moving from his tracks Slavin met him with a straight left hander and laid him flat.

"Hooray!" yelled Blaney. "Ireland forever!" and, seizing the iron poker, swung it around his head, crying, "Back, or, by holy Moses, I'll kill the first man that interferes wid the game!"

"Give it to him!" Keefe said savagely.

Sandy rose slowly, gazing round stupidly.

"He don't know what hit him," laughed Keefe.

This roused the highlander, and, saying, "I'll settle you afterward, Mr. Keefe," he rushed in again at Slavin.

Again Slavin met him with his left,

staggered him and before he fell took a step forward and delivered a terrific right hand blow on his jaw. Poor Sandy went down in a heap amid the yells of Blaney, Keefe and some others of the gang.

I was in despair when in came Baptiste and Graeme.

One look at Sandy, and Baptiste tore off his coat and cap, slammed them on the floor, danced on them and with a long drawn "Sap-r-r-r-rie!" rushed at Slavin.

But Graeme caught him by the back of the neck, saying, "Hold on, little man," and, turning to Slavin, pointed to Sandy, who was reviving under Nelson's care, and said, "What's this for?"

"Ask him," said Slavin insolently. "He knows."

"What is it, Nelson?"

Nelson explained that Sandy, after drinking some at the stable and a glass at the Black Rock hotel, had come down here with Keefe and the others, had lost his money and was accusing Slavin of robbing him.

"Did you furnish him with liquor?" said Graeme sternly.

"It is none of your business," replied Slavin, with an oath.

"I shall make it my business. It is not the first time my men have lost money in this saloon."

"You lie!" said Slavin, with deliberate emphasis.

"Slavin," said Graeme quietly, "it is a pity you said that, because, unless you apologize in one minute, I shall make you sorry."

"Apologize?" roared Slavin. "Apologize to you?" calling him a vile name.

Graeme grew white and said, even more slowly:

"Now you'll have to take it. No apology will do."

He slowly stripped off coat and vest.

Mr. Craig interposed, begging Graeme to let the matter pass.

"Surely it is not worth it."

"Mr. Craig," said Graeme, with an easy smile, "you don't understand. No man can call me that name and walk around afterward feeling well."

Then, turning to Slavin, he said:

"Now, if you want a minute's rest I can wait."

Slavin, with a curse, bid him come.

"Blaney," said Graeme sharply, "you get back." Blaney promptly stepped back to Keefe's side. "Nelson, you and Baptiste can see that they stay there."

The old man nodded and looked at Craig, who simply said:

"Do the best you can."

It was a good fight. Slavin had plenty of pluck and for a time forced the fighting, Graeme guarding easily and tapping him aggressively about the nose and eyes, drawing blood, but not disabling him. Gradually there came a look of fear into Slavin's eyes, and the beads stood upon his face. He had met his master.

"Now, Slavin, you're beginning to be sorry, and I am going to show you what you are made of."

Graeme made one or two lightning passes, struck Slavin one, two, three terrific blows and laid him quite flat and senseless.

Keefe and Blaney both sprang forward, but there was a savage kind of growl.

"Hold, there!" It was old man Nelson, looking along a pistol barrel. "You know me, Keefe," he said. "You won't do any murder this time."

Keefe turned green and yellow and staggered back, while Slavin slowly rose to his feet.

"Will you take some more?" said Graeme. "You haven't got much; but, mind, I have stopped playing with you. Put up your gun, Nelson. No one will interfere now."

Slavin hesitated, then rushed, but Graeme stepped to meet him, and we saw Slavin's heels in the air as he fell back upon his neck and shoulders and lay still, with his toes quivering.

"Bon!" yelled Baptiste. "Bully boy! Dat's de bon stuff! Dat's larn him one good lesson!" But immediately he shrieked, "Gar-r-r-r-e-a-vous!"

He was too late, for there was a crash of breaking glass, and Graeme fell to the floor with a long, deep cut on the side of his head. Keefe had hurled a bottle with all too sure an aim and had fled. I thought he was dead, but we carried him out, and in a few minutes he groaned, opened his eyes and sank again into insensibility.

"Where can we take him?" I cried.

"To my shack," said Mr. Craig.

"Is there no place nearer?"

"Yes; Mrs. Mavor's. I shall run on to tell her."

She met us at the door. I had in mind to say some words of apology, but when I looked upon her face I forgot my words, forgot my business at her door, and stood simply looking.

"Come in. Bring him in. Please do not wait," she said, and her voice was sweet and soft and firm.

We laid him in a large room at the back of the shop over which Mrs. Mavor lived. Together we dressed the wound, her firm white fingers skillful as if with long training. Before the dressing was finished I sent Craig off, for the time had come for the magic lantern in the church, and I knew how critical the moment was in our fight.

"Go," I said. "He is coming to, and we do not need you."

In a few moments more Graeme revived and, gazing about, asked:

"What's all this about?" and then recollecting, "Ah, that brute Keefe!" Then, seeing my anxious face, he said carelessly: "Awful bore, isn't it? Sorry to trouble you, old fellow."

"You be hanged!" I said shortly, for his old sweet smile was playing about his lips and was almost too much for me. "Mrs. Mavor and I are in command, and you must keep perfectly still."

"Mrs. Mavor?" he said in surprise. She came forward, with a slight flush on her face.

"I think you know me, Mr. Graeme."

"I have often seen you and wished to

know you. I am sorry to bring you this trouble."

"You must not say so," she replied, "but let me do all for you that I can. And now the doctor says you are to lie still."

"The doctor? Oh, you mean Connor! He is hardly there yet. You don't know each other. Permit me to present Mr. Connor, Mrs. Mavor."

As she bowed slightly her eyes looked into mine with a serious gaze, not inquiring, yet searching my soul. As I looked into her eyes I forgot everything about me, and when I recalled myself it seemed as if I had been away in some far place. It was not their color or their brightness. I do not yet know their color, and I have often looked into them, and they were not bright, but they were clear, and one could look far down into them and in their depths see a glowing, steady light. As I went to get some drugs from the Black Rock doctor I found myself wondering about that far down light and about her voice—how it could get that sound from far away.

I found the doctor quite drunk, as indeed Mr. Craig had warned, but his drugs were good, and I got what I wanted and quickly returned.

While Graeme slept Mrs. Mavor made me tea. As the evening wore on I told her the events of the day, dwelling admiringly upon Craig's generalship.

She smiled at this.

"He got me, too," she said. "Nixon was sent to me just before the sports, and I don't think he will break down today, and I am so thankful." And her eyes glowed.

"I am quite sure he won't," I thought to myself, but I said no word.

After a long pause she went on, "I have promised Mr. Craig to sing tonight if I am needed," and then, after a moment's hesitation, "It is two years since I have been able to sing—two years," she repeated "since," and then her brave voice trembled, "my husband was killed."

"I quite understand," I said, having no other word on my tongue.

"And," she went on quietly, "I fear I have been selfish. It is hard to sing the same songs. We were very happy. But the miners like to hear me sing, and I think perhaps it helps them to feel less lonely and keeps them from evil. I shall try tonight if I am needed. Mr. Craig will not ask me unless he must."

I would have seen every miner and lumberman in the place hideously drunk before I would have asked her to sing one song while her heart ached. I wondered at Craig and said rather angrily:

"He thinks only of those wretched miners and shanty men of his."

She looked at me with wonder in her eyes and said gently:

"And are they not Christ's too?"

And I found no word to reply.

It was nearing 10 o'clock and I was wondering how the fight was going on and hoping that Mrs. Mavor would not be needed when the door opened and old man Nelson and Sandy, the latter much battered and ashamed, came in with the word for Mrs. Mavor.

"I will come," she said simply. She saw me preparing to accompany her and asked, "Do you think you can leave him?"

"He will do quite well in Nelson's care."

"Then I am glad, for I must take my little one with me. I did not put her to bed in case I should need to go, and I may not leave her."

We entered the church by the back door and saw at once that even yet the battle raged easily be lost.

Some miners had just come from Slavin's, evidently bent on breaking up the meeting in revenge for the collapse of the dance, which Slavin was unable to enjoy, much less direct. Craig was gallantly holding his ground, finding it hard work to keep his men in good humor and so prevent a fight, for there were cries of "Put him out! Put the beast out!" at a miner half drunk and wholly outrageous.

The look of relief that came over his face when Craig caught sight of us told how anxious he had been and reconciled me to Mrs. Mavor's singing. "Thank the good God!" he said, with what came near being a sob. "I was about to despair."

He immediately walked to the front and called out:

"Gentlemen, if you wish it, Mrs. Mavor will sing."

There was a dead silence. Some one began to applaud, but a miner said savagely:

"Stop that, you fool!"

There was a delay of a few moments when from the crowd a voice called out:

"Does Mrs. Mavor wish to sing?" followed by cries of "Aye, that's it!"

Then Shaw, the foreman at the mines, stood up in the audience and said:

"Mr. Craig and gentlemen, you know that three years ago I was known as 'Old Ricketts' and that I owe all I am tonight, under God, to Mrs. Mavor, and," with a little quiver in his voice, "her baby. And we all know why. And what I say is that if she does not feel like singing tonight she is not going to sing to keep any drunk brute of Slavin's crowd quiet."

There were deep growls of approval all over the church. I could have hugged Shaw then and there. Mr. Craig went to Mrs. Mavor and after a word with her came back and said:

"Mrs. Mavor wishes me to thank her dear friend Mr. Shaw, but says she would like to sing."

The response was perfect stillness. Mr. Craig sat down at the organ and played the opening bars of the touching melody, "Oft In the Still Night."

Mrs. Mavor came to the front and, with a smile of exquisite sweetness upon her sad face and looking straight at us with her glorious eyes, began to sing.

Her voice, a rich soprano, even and true, rose and fell, now soft, now strong, but always filling the building, pouring around us floods of music. I had heard Patti's "Home, Sweet Home," and of all singing that alone affected me as did this.

At the end of the first verse the few women in the church and some of the men were weeping quietly, but when she began the words,

"When I remember all
The friends once linked together,"

sobs came on every side from these tender hearted fellows, and Shaw quite lost his grip. But she sang steadily on, the tone clearer and sweeter and fuller at every note, and when the sound of her voice died away she stood looking at the men as if in wonder that they should weep. No one moved. Mr. Craig played softly on and, wandering through many variations, arrived at last at—

"Jesus, lover of my soul."

As she sang the appealing words her face was lifted up, and she saw none of us, but she must have seen some one, for the cry in her voice could only come from one who could see and feel help close at hand. On and on went the glorious voice, searching my soul's depths, but when she came to the words,

"Thou, O Christ, art all I want,"

she stretched up her arms—she had quite forgotten us; her voice had borne her to other worlds—and sang with such a passion of abandon that my soul was ready to surrender anything, everything.

[TO BE CONTINUED.]

Sciatic Rheumatism Cured After Fourteen Years of Suffering.

"I have been afflicted with sciatic rheumatism for fourteen years," says John Edgar, of Germantown, Cal.

"I was able to be around, but constantly suffered. I tried everything I could hear of and at last was told to try Chamberlain's Pain and Balm, which I did, and was immediately relieved and in a short time cured, and I am happy to say it has not since returned." Why not use this liniment and get well? It is for sale by S. E. WELCH, JR.

Persons who board themselves can spend as much or little as they choose on living expenses. It pays to have a little extra money for lectures, books, and other things. But the necessary expenses are only as follows:

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School (Incidental Fee)	2 50	2 50
Ex-penses	25	25
Hospital Fee	2 00	2 00
Books, etc., about	1 00	1 00
General Deposit	1 00	1 00
Room (stove, table, etc.)	2 00	2 50
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